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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,917	10/22/2003	Michael J. Wookey	30014200-1099	6869

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EXAMINER

ASSESSOR, BRIAN J

ART UNIT PAPER NUMBER

2114

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/690,917	<b>Applicant(s)</b> WOOKEY ET AL.	
	<b>Examiner</b> Brian J. Assessor	<b>Art Unit</b> 2114	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-24, 27-38 and 41-44 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 25, 26, 39 and 40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/26/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

Art Unit: 2114

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 and 15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 is a disassembled program claim and is not statutory under 35 USC 101, proper correction is required.

Claim 15 is a program claim and is not statutory under 35 USC 101, proper correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 7-10, 13-16, 21-24, 27-30, 35-38, and 41-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Waclawsky (5,446,874).

As per claim 1, Waclawsky teaches:

Art Unit: 2114

A method in a data processing system having a program, the method comprising the steps performed by the program of:

monitoring in real-time a plurality of signals that each describe an operating condition of a subject data processing system; (Waclawsky column 3, lines 33-38)

determining whether there is a problem with the subject data processing system by comparing at least one of the monitored signals to a corresponding at least one signal in a known signal dataset, the known signal dataset comprising a signal value for at least one signal that describes an operating condition of one of a plurality of subject data processing systems; (Waclawsky column 5, lines 31-35)

preparing a new signal dataset having an entry for each monitored signal and a corresponding signal value simultaneously with monitoring the plurality of signals and determining whether there is a problem. (Waclawsky column 5, lines 21-25)

As per claim 2, Waclawsky teaches:

The method according to claim 1, further comprising the steps of:

choosing the known signal dataset from a plurality of known signal datasets; and retrieving the chosen known signal dataset. (Waclawsky column 5, line 66 – column 6, line 5)

As per claim 7, Waclawsky teaches:

The method according to claim 1, further comprising the step of:

Art Unit: 2114

after preparing the new signal dataset, replacing the known signal dataset with the new signal dataset, wherein the monitored signals are compared to the new signal dataset. (Waclawsky column 5, lines 25-30)

As per claim 8, Waclawsky teaches:

The method according to claim 1, further comprising the step of:

storing the new signal dataset with the plurality of known signal datasets.

(Waclawsky figure 1A-1, element 195)

As per claim 9, Waclawsky teaches:

The method according to claim 1, wherein the monitored signals include at least one of physical variables of a physical status of the subject data processing system, performance variables of a performance of the subject data processing system, and canary variables of user transaction times with the subject data processing system.

(Waclawsky figure 1B; an example display of different performance and physical variables being tracked and recorded.)

As per claim 10, Waclawsky teaches:

The method according to claim 9, wherein the monitored signals include at least one of a temperature, a voltage, a current, a vibration, an environmental variable, a time-domain reflectometry reading, a load on a CPU, a load on a memory, a throughput, a queue length, a bus saturation, a FIFO overflow statistic, an input/output

Art Unit: 2114

traffic value, a security value, a memory utilization, a cache utilization, and a wait time.

(Waclawsky column 13, lines 14-16; throughput)

As per claim 13, Waclawsky teaches:

The method according to claim 1, wherein a pattern recognition method is used to determine whether there is a problem with the subject data processing system.

(Waclawsky column 8, lines 27-34)

As per claim 14, Waclawsky teaches:

The method according to claim 13, wherein the pattern recognition method is at least one of a multivariate state estimation technique, nonlinear nonparametric regression algorithm, a neural network, a component analysis method, an adaptive method based on a Kalman filter, and a method based on an autoregressive moving average. (Waclawsky column 8, lines 27-34)

Claims 15, 16, 21-24, 27, and 28 respectfully are computer readable medium claims corresponding to the method claims 1, 2, 7-10, 13, and 14. Therefore, claims 15, 16, 21-24, 27, and 28 are rejected for the same rationale set forth in claims 1, 2, 7-10, 13, and 14.

Claims 29, 30, 35-38, 41, and 42 respectfully are data processing system claims corresponding to the method claims 1, 2, 7-10, 13, and 14. Therefore, claims 29, 30,

Art Unit: 2114

35-38, 41, and 42 are rejected for the same rationale set forth in claims 1, 2, 7-10, 13, and 14.

Claim 43 is a data processing system claim corresponding to the method claim 1. Therefore, claim 43 is rejected for the same rationale set forth in claim 1.

Claim 44 is a computer readable medium claim corresponding to the method claim 1. Therefore, claim 44 is rejected for the same rationale set forth in claim 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6, 17-20, and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waclawsky (5,446,874) in view of Baker (4,847,795).

As per claim 3:

Waclawsky does not explicitly disclose a method wherein the known signal dataset is chosen from the plurality of known signal datasets as having one of an exact match and a nearest match to the monitored signals of the subject data processing system among the plurality of known signal datasets.

Art Unit: 2114

In column 4, lines 38-52, Baker clearly discloses a method which matches test data to find an exact or nearest match to known stored data. It would have been obvious to a person skilled in the art at the time of invention to include the closest match method as taught by Baker in order to allow for the testing of new and varying systems. This would have been obvious because Baker clearly teaches that the above process is better suited for using expert systems for diagnosing electronic systems. (Baker column 1, line 59 – column 2, line 2)

The method according to claim 3, wherein the known signal dataset's at least one signal is an exact match to the monitored signals of the subject data processing system. (Baker column 4, lines 38-52)

As per claim 5:

The method according to claim 3, wherein the known signal dataset's at least one signal is a nearest match to the

As per claim 4:

monitored signals of the subject data processing system. (Baker column 4, lines 38-52)

As per claim 6:



Waclawsky does not explicitly disclose a method wherein the known signal dataset is chosen using a set theory operator.

In column 4, lines 46-52, Baker clearly discloses a method uses a known signal dataset is chosen using a set theory operator. It would have been obvious to a person skilled in the art at the time of invention to include the theory operator as taught by Baker in order to allow for the testing of new and varying systems. This would have been obvious because Baker clearly teaches that the above process is better suited for using expert systems for diagnosing electronic systems. (Baker column 1, line 59 – column 2, line 2)

Claims 17-20 respectfully are computer readable medium claims corresponding to the method claims 3-6. Therefore, claims 17-20 are rejected for the same rationale set forth in claims 3-6.

Claims 31-34 respectfully are data processing system claims corresponding to the method claims 3-6. Therefore, claims 31-34 are rejected for the same rationale set forth in claims 3-6.

***Allowable Subject Matter***

Claims 11, 12, 24, 25, 39, and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Assessor whose telephone number is (571) 272-0825. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571)272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BA

  
**SCOTT BADERMAN**  
SUPERVISORY PATENT EXAMINER

